

Summary

In hospitalized geriatric patients, malnutrition and deficiency states present a serious problem, which, in spite of its seriousness is at the margin of interest. It is necessary to ensure that hospitalization will not deteriorate nutritional deficit, and thus it will not increase the risk of complications of treatment and will not endanger the patient's life. Adequate dietary measures or nutrition support can prevent these problems. The present study aimed to evaluate the nutritional state of the elderly patients admitted to hospital and the effects of hospitalization and possible nutritional support on the changes in nutritional parameters and vitamin deficiency.

A unique group of patients aged 80 years and older hospitalized at the standard ward of the Department of Gerontology and Metabolic Care, Faculty Hospital in Hradec Kralove, was studied. In the course of the study, approximately 70 anamnestic, anthropometric and laboratory parameters were examined, which were determined on the day of patients' admittance and then always in week's intervals. The obtained values were subjected to statistical analysis. The initial values of the parameters under study were evaluated, which show the condition of the admitted geriatric patient. The study focused on the relationship between positive and negative markers of inflammation and between Mini-Nutritional Assessment, anthropometry and laboratory nutritional markers, and the evaluation of the development of selected values in time. A special group represented rehospitalized and deceased patients and patients with added nutrition in the form of a therapeutic experiment. In addition, general anthropometry was performed in groups of young healthy volunteers and stabilized seniors from the Home for Seniors in Hradec Kralove and their results were compared with anthropometry in a group of hospitalized geriatric patients. Furthermore, a one-year retrospective screening was carried out at 5 clinics (internal medicine and surgical specialisations) of the Faculty Hospital in Hradec Kralove, where the initial values of total protein and albumin and their development in the course of hospitalization were examined.

The study demonstrated disorders of nutritional condition and vitamin deficiency in geriatric patients already at the time of admittance to hospital. Deterioration of nutritional parameters was manifested in all types of examination – nutritional questionnaire, anthropometry, laboratory and functional tests. In the course of hospitalization, no statistically significant positive effect on the initial low values was observed; on the other hand, a decrease in the values of total protein and albumin was demonstrated. In rehospitalized patients and the group of deceased patients, the values under study were mostly more decreased than in the whole geriatric group. In patients with added nutrition, in comparison with the basic group, in the course of hospitalization there was a trend towards reduction of the decrease in total protein and albumin and a slight increase in other nutritional parameters. The hospital screening comparing the initial values of total protein and albumin and their development during hospitalization fell out well for the fields of internal medicine.

The present study demonstrates the necessity of searching for geriatric patients at risk of malnutrition or malnourished, and the necessity of early commencement of supplementary nutrition after admittance of such patients to hospital. The results of hospital screening demonstrate the pertinence of pre-operational nutritional support in patients at risk in surgical departments. The partial results and subsequently the final results of the study were presented in the form of lectures at scientific conferences and publications in peer-reviewed national and international medical journals and as chapters in a professional publication. The authors would like to further process the obtained results, expand them and to attempt to formulate concrete recommendations in the form of standards for nutritional support in hospitalized geriatric patients, which should increase the quality of care for seniors at the Faculty Hospital in Hradec Kralove.